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# DUCKS, HABITAT CONSERVATION, AND PREDATORS



BLUE-WINGED TEAL BROOD  
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REDHEAD HEN ©JOHN R. FORD

# DUCKS, HABITAT CONSERVATION, AND PREDATORS

*A closer look at large-scale predator-control programs reveals that they are counterproductive to the long-term benefits of waterfowl and waterfowl hunters*

**BY CHUCK PETRIE**

People often ask why Ducks Unlimited does not endorse predator control as a means of increasing duck production. After all, predator control is effective, isn't it? Haven't studies proved that controlling predators such as foxes, raccoons, and skunks can significantly increase waterfowl nest success? If DU is concerned about the future of waterfowl and waterfowling, why doesn't it advocate and practice predator control on a large scale across the ducks' primary breeding grounds?

The truth is that Ducks Unlimited is not always against predator control. DU's biologists and others have long known that controlling waterfowl predators on relatively small, specific problem areas can be effective—and, in fact, have practiced short-term predator control on small pieces of habitat.

However, working on small pieces can be expected to yield small results in the big picture. DU and other wildlife management leaders have learned from those experiences and re-evaluated what they must do to most effectively assure the long-term health of waterfowl populations across North America (see sidebar: Mississippi Flyway Council Statement and Others' Positions on Predator Removal). As a result, we have remained focused on DU's original "Singleness of Purpose"—that of securing and restoring the habitat base upon which waterfowl depend. And we have concluded that wide-scale predator control to increase duck populations is an ineffective approach that would be harmful to long-term waterfowl conservation and the hunters who enjoy the sport of waterfowling.





NORTHERN PINTAIL: ©NEAL & M J MISHLER

Improved agricultural practices that have benefited farmers through improved soil and water conservation and reduced input costs have had an unintended effect on pintail populations. Vast areas of pintail breeding habitat are now plowed every year just after nesting has started. Pintail nesting densities are typically very low—such that they will not benefit from predator control or any other intensive management practice.

DU's staff and Boards of Directors in the United States, Canada, and Mexico recently looked very critically at how to best serve waterfowl for the future through a comprehensive strategic planning initiative that was led by DU President John Tomke and DU Executive Vice President Don Young. One outcome of that huge task was to ensure that all three of DU's operations in North America shared a common mission, which reaffirms that "Ducks Unlimited conserves, restores, and manages wetlands and associated habitats for North America's waterfowl. These habitats also benefit other wildlife and people."

Conserving habitat is the paramount priority that is supported by everybody—even the most ardent advocates of predator control—involved in waterfowl conservation (indeed, in all wildlife conservation). President Tomke reflected, "It only makes sense that DU came to the conclusion that it must continue to focus on this mandate. We know this is the right path to assuring that we have enough places for waterfowl to live in large numbers that will provide for the enjoyment of today's hunters and other outdoor enthusiasts, as well as their children and grandchildren."

### HABITAT CONSERVATION VS. PREDATOR CONTROL

- Predator control cannot result in meaningful increases in duck numbers or birds in the bag and threatens to undermine the broad coalition of public support on which modern waterfowl conservation depends.
- Dollars diverted to killing predators are dollars lost to habitat conservation. In business terminology, this is known as opportunity cost. Doing one thing means not doing something else. Spending scarce habitat dollars on predator control will assure that more critical habitat will be lost.
- Nearly every dollar spent on habitat for waterfowl is matched by special funds such as the North American Wetlands Conservation Fund (NAWCF), which is set aside by Congress for habitat work. Many other partners also add to the pot, and it is not unusual to have dollars from DU and other sources matched three or four times to do even more habitat conservation in the highest priority areas. Dollars diverted to predator control are not matchable, and therefore not eligible to leverage NAWCF funds or other dollar-matching habitat funds because of the lack of partners who see the merit in such short-term practices.
- On a local scale, predator control can provide immediate benefits to a few waterfowl, but it does not contribute to the long-term security of waterfowl habitat and waterfowl abundance on a continental or even regional scale.
- Predator control provides no lasting impact on waterfowl numbers because as predators are removed, those individuals are quickly replaced or other predator populations increase.
- Predators must be removed every year, simply to temporarily suppress their numbers, and that is not a practical or sustainable option over large areas or over the long term.
- Habitat conservation results in incremental gains each and every year. The core challenge is to improve and sustain the productive capability of the "Duck Factory" over the long term.
- During drought years, the breeding effort in the prairie duck factory effectively shuts down and populations decline because ducks nest very sparingly across vast areas of dry landscape. If few ducks are nesting, even predator control cannot improve duck-breeding success enough to result in meaningful improvements in continental duck populations. Waterfowlers simply have to pull in their belts during those years as they have during all of the last century and beyond. What is critical is that the nesting habitat base remains secure so that ducks can flourish again when water returns to the breeding grounds.

■ **FOWL FACT** "Consider a wetland complex of a given size that produces 100 ducklings per year. With intensive annual predator control, that same complex might produce 150 or even 200 ducklings per year. But if that complex's potholes are drained and its grassland plowed under to produce a potato field or parking lot, it will never produce another duckling again—ever. That's why Ducks Unlimited focuses its efforts on habitat conservation, not predator control."

—DU Regional Biologist Michael Checkett

DU has been dedicated to habitat conservation for waterfowl throughout its history. The task ahead is different, but just as daunting, as it was in 1937 when DU was founded. Waterfowl habitat is under relentless siege everywhere, but probably nowhere more than on the prairie breeding grounds that produce from 50 to 75 percent of North America's hunted duck species.

The threats are mostly driven by the intensification of farming and changes in wetlands protection policies. Work on these issues has never been more important than it is right now—the future of waterfowl populations and waterfowl hunting hang in the balance. It is absolutely crucial that funds that support habitat conservation work are not siphoned away to support practices such as large-scale predator control that do



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**Significant tracts of superb wetland landscapes still exist in some regions. It is critical that these be protected for generations of the future.**

lands in the United States (and in Canada) at an alarming rate of more than 100,000 acres per year, and, on top of that, upland nesting cover is also under increasing pressure as the

agricultural sector seeks to maintain financial viability in the face of the difficult realities of world markets.

According to Dr. Alan Wentz, DU's group manager for conservation pro-

**“THE MOST IMPORTANT THINGS WE CAN DO INVOLVE PROTECTING, MAINTAINING, AND RESTORING AS MUCH OF THE EXISTING WATERFOWL HABITATS AS WE POSSIBLY CAN WHILE THAT REMAINS AN OPTION.” —Dr. Bruce Batt**

not contribute to solving these critical issues. If other parties want to secure *additional, separate* funding to carry out predator control, let them do so. There's room for everybody with a fervent desire to help waterfowl in this world. However, given the finite financial resources that can be directed toward securing waterfowl breeding habitat in the Prairie Pothole Region (PPR) and elsewhere, it is surely, intuitively obvious that these precious monetary resources must not be diminished. In fact, just the opposite is true: They need to be greatly increased. We are losing wet-

#### **MISSISSIPPI FLYWAY COUNCIL STATEMENT AND OTHERS' POSITIONS ON PREDATOR REMOVAL**

In March of 2003, the Mississippi Flyway Council (composed of leaders of wildlife agencies from 14 states—MN, WI, MI, OH, KY, IL, IN, IA, MO, AR, TN, MS, LA, AL—and three provinces—Saskatchewan, Manitoba, and Ontario—in the Mississippi Flyway) issued the following position statement regarding predator removal:

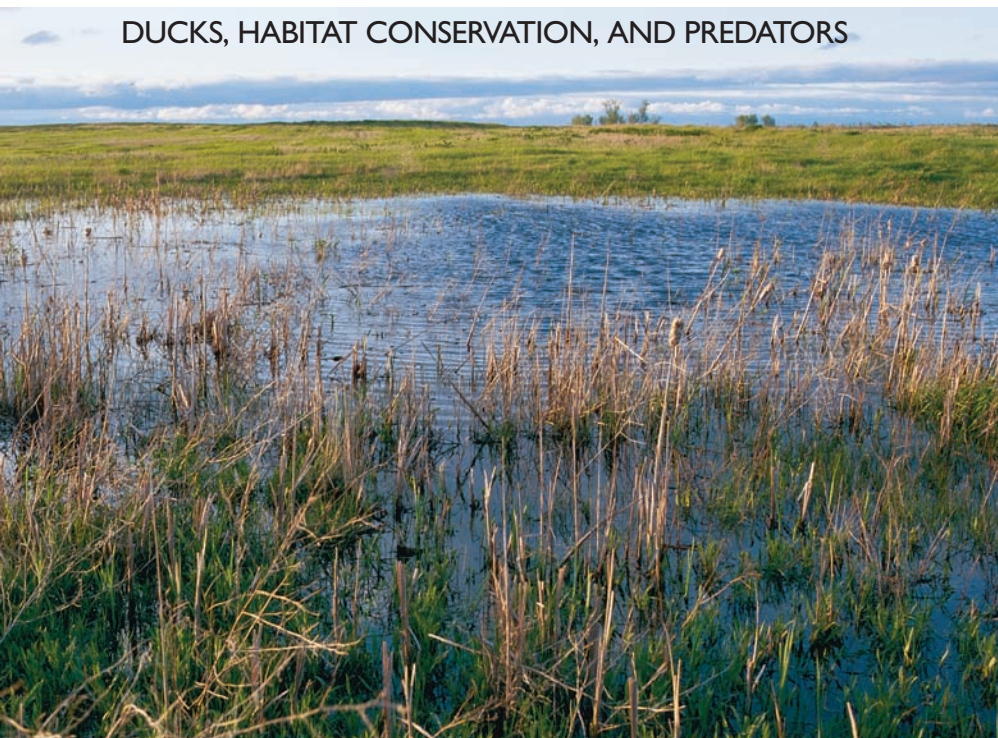
“The Mississippi Flyway Council (MFC) does not support the practice of predator removal as a viable management practice to improve waterfowl recruitment over the long term or over large geographic areas. The MFC believes that the highest conservation priorities for improving waterfowl recruitment are the landscape-level wetland and grassland habitat restoration strategies advocated by the North American Waterfowl Management Plan (NAWMP). Maintaining waterfowl breeding habitat is the highest priority for the long-term welfare of waterfowl populations in North America.”

As part of the justification for its position statement, the MFC also stated: “Furthermore, in an era of limited resources, expending funds on predator removal necessarily competes with landscape habitat programs, the emphasis of the NAWMP. While predator removal should be recognized as one of a suite of management tools available to wildlife managers to be applied on a localized basis, the Mississippi Flyway Council Technical Section [comprised of waterfowl biologists and wildlife managers] believes improving waterfowl recruitment is better accomplished through the primary strategy of large-scale wetland and grassland habitat restoration strategies embraced by the NAWMP.”

Also, in August, the Arkansas Wildlife Federation's (AWF) Duck Committee (a group of concerned waterfowl hunters and community leaders) published a comprehensive report on the status of waterfowl hunting in that state. Key conclusions in the report included: “It all starts with the nest and proper habitat. The AWF Duck Committee has found that the more productive prairie pothole habitat we have, the more ducks we will have make the fall flight . . . Predator management may be helpful in small areas, but it is not believed to be practical on a large scale.”



## DUCKS, HABITAT CONSERVATION, AND PREDATORS



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**CRP has been one of the greatest booms in recent history for waterfowl and other grassland wildlife. Critical programs like this are made possible because of the broad-based support in society for waterfowl conservation but, just as importantly, for the multiple benefits that such programs provide for soil and water conservation, and water quality.**

grams, “We cannot afford continued habitat loss or we will not be able to sustain waterfowl populations over the long term. We have been fortunate that, despite ongoing losses of habitat, most prairie waterfowl populations are in better shape than they have been since we began surveying breeding birds in the 1950s. With only a couple of exceptions, North America’s ducks and geese are at or above the goals of the North American Waterfowl Management Plan. Between 1994 and 1999, duck numbers increased by 69 percent after water returned to core breeding areas. This occurred in the complete absence of predator control, proving again that when moisture is plentiful and there is sufficient wetland and upland habitat, duck production overwhelms duck predation. Some species have never been more numerous since

**This gadwall nest is near hatching. Gadwall populations have reached new highs in recent years. More than 90 percent of the surveyed population of this species nests in the Prairie Pothole Region.**

breeding records and surveys began in 1955. Quite simply, current programs emphasizing habitat are working and must be continued.”

Dr. Bruce Batt, DU’s chief waterfowl biologist, adds, “We know the breeding ground landscapes can produce record fall flights without predator control. We saw this as recently as four years ago. In 2001 and 2002,



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### HABITAT AND WEATHER CONTROL DUCK NUMBERS

Prairie ducks showed a solid increase in numbers in 2003 after two years of decline caused by dry conditions—an identical pattern to what waterfowl enthusiasts have seen since the first settlers arrived on the continent. Most prairie duck species are near or above North American Waterfowl Management Plan goals. This outcome clearly shows that when the prairies are wet and good nesting habitat is available, ducks respond. And they do so without predator control. Even the promoters of predator control agree that when habitat conditions are good, reproduction by prairie ducks overwhelms predation, and we have excellent fall flights of ducks.

During periods of drought, DU’s job is to make sure that when moisture returns there will be sufficient wetland and upland habitat for ducks to rebound yet again.

much of the continent’s ‘Duck Factory’ was drier than normal and, consequently, duck numbers declined. When water returned to the prairies in 2003, duck numbers rebounded substantially. The most important things we can do involve protecting, maintaining, and restoring as much of the existing waterfowl habitats as we possibly can while that remains



an option. It's the only way we will avoid a situation where killing predators, closing the hunting season, and similar 'last ditch' tactics are all we have left—and, if we ever get to that point, we will have lost.

"The cumulative gains in habitat conservation are really what count," Batt continues, "and are why duck populations are in pretty good shape, in view of all the things that have happened in their environment that should logically have prevented the recent recovery. For example, when duck stamp funds were first applied to protecting breeding habitat in North Dakota with perpetual-protec-

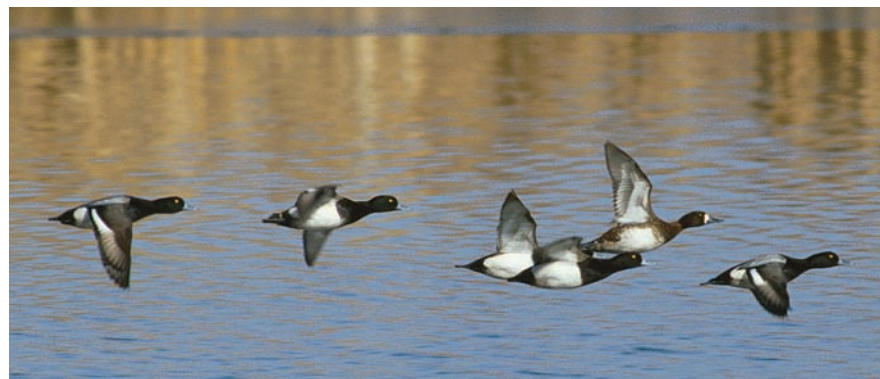
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—Dr. Alan Wentz

tion easements a few decades ago, progress was indeed slow in comparison to the number of wetlands that begged for conservation. Now we have a legacy of 1.5 million acres of breeding habitat permanently secured by these U.S. Fish and Wildlife Service easements, habitat that is fundamental to the future of waterfowl conservation in that critical region of the prairie breeding grounds. Fill in the spaces with Waterfowl Production Areas, grassland protected by the Conservation Reserve Program (CRP) for nesting, and habitat restored and protected by private landowners, DU, the states, the provinces, the federal government, corporations, and others and we have the basis for the excellent waterfowl populations we've enjoyed over the last decade. If those duck stamp dollars would have been spent killing predators, we



LESSER SCAUP: ©BILL MARCHEL.COM

#### SCAUP, PINTAILS, AND PREDATOR CONTROL

Despite the great duck populations of the last few years, scaup and pintails have continued to decline. Could predator control help reverse these problems? The answer is no—simply because low numbers of pintails and scaup are not caused by predation. Biologists have reached a consensus that the pintail decline is mostly caused by changed farming practices. In the prairies of the U.S. and Canada, farmers have greatly reduced fall tillage to reduce soil erosion and fuel costs and to conserve moisture. The stubble that is left from the previous crop is actually attractive to pintails for nesting the following spring, as it is structurally similar to the short-grass prairie that they favor. Pintails are the earliest-nesting duck species and, in some years, hundreds of thousands of hens establish nests in the stubble only to have farm machinery destroy them when spring planting begins. Because they don't renest as well as other ducks, most of the year's potential production will be lost in just a few days each spring when farming starts. Predator control will clearly not solve this problem. But DU is working hard with farmers to incorporate more pintail-friendly farming practices into their crop rotations, such as fall-seeded crops, and to convert marginal cultivated ground back into permanent grassland.

Most scaup nest in the boreal forest of western Canada and Alaska. This is the largest ecosystem in the world and covers millions of square miles where scaup are dispersed widely and where predator control is simply not a feasible alternative. The most recent evidence on a major factor that is controlling scaup numbers comes from the Midwest where Mike Anteau and leading waterfowl researcher Dr. Alan Afton, from Louisiana State University, have discovered that scaup are now lighter in weight when they leave the prairies on their way to the boreal forest to breed. This is likely caused by degraded prairie wetland conditions, caused by a variety of factors, that affect their food supply just when they need it most to store fat and other nutrients for nesting. Predation is not a major factor, but DU is continuing to support research to more clearly identify the issues that are actually affecting scaup populations.

## DUCKS, HABITAT CONSERVATION, AND PREDATORS

WITH ITS MYRIAD PARTNERS INTERESTED IN HABITAT CONSERVATION, DU CAN LEVERAGE DOLLARS MULTIPLE TIMES TO PUT EVEN MORE HABITAT ON THE GROUND. THE SAME CANNOT BE SAID FOR PREDATOR CONTROL.

MALLARDS ©STANLEY BJMAN



**These four-week-old mallards are hunkered down for the midday, safe from danger in dense cattail cover. The habitat base that supports mallards is still able to produce populations that are equivalent to what they were 40 and 50 years ago. Only continued habitat conservation programs will ensure that this pattern will be repeated in the years ahead.**

would not be able to tell one of the greatest waterfowl conservation stories in history.”

“DU welcomes all players,” Wentz says, “and we are especially pleased that so many other partners have become involved in waterfowl habitat conservation. There are numerous state waterfowl associations that share our interest in habitat conservation for waterfowl. Other major conservation groups are interested in other wildlife, and they also recognize the importance of waterfowl habitat and are working hard to protect wetlands and other habitat that serve their needs and those of waterfowl. Today, we also have the greatest involvement ever by private landowners, and state, provincial, and federal agencies in wetlands conservation. They are supported by good legislation such as the North American Wetlands Conservation Act and unprecedented international agreements such as the North American Waterfowl Management Plan. With its myriad partners interested in habitat conservation, DU can leverage dollars

multiple times to put even more habitat on the ground. The same cannot be said for predator control.

“The stage is set,” Wentz adds, “and important gains are being made, but the challenges are huge and changing every day. This is not the time to sacrifice any of these hard-fought gains by diverting resources and attention away

### HABITAT CONSERVATION AND PUBLIC POLICY

Public policy work by DU and other conservation organizations is critical to the future of waterfowl conservation. Because of past successes in this area, a broad-based culture of protecting wetlands and other wildlife habitat has developed in North America. This has resulted in huge gains for wildlife, especially in the area of beneficial agricultural and wildlife policies that benefit enormous acreages of landscape for waterfowl and other wildlife. Historically, the amount of wetland loss has been much greater than we see today. Between 1950 and 1970, the annual rate of net loss of wetlands in the U.S. was 458,000 acres, which dropped to 290,000 acres per year through the 1970s and 1980s. Much of the reduction in losses was due to an increasing public awareness of wetland values that led to public policy changes to protect wetlands.

DU and its multitude of private and public partners are successful today because waterfowl hunters and other conservationists tell their elected representatives that waterfowl habitat is important and demonstrate their commitment by funding habitat conservation themselves. Other citizens from across a wide spectrum of society support waterfowl conservation because of the many additional environmental benefits provided by waterfowl habitat.

The most significant contribution of the broad coalition that supports waterfowl habitat conservation comes from their influence on public policy. Politicians react to the needs of their constituents, and waterfowl advocates have worked hard to get solid conservation provisions such as CRP and the Wetland Reserve Program into the Farm Bill, and to support passage of the North American Wetlands Conservation Act, to name just two major acts of Congress. Because DU and its partners have invested their money where their mouths are, they are extremely effective spokespersons that support beneficial policies for waterfowl.

Thus, there is great strength in our collective diversity and numbers, but waterfowl conservation will fail without all of us working in the same direction.



## DUCKS, HABITAT CONSERVATION, AND PREDATORS

from this effort. It took decades of successful efforts by millions of people to get to this point. Taking resources from habitat conservation for predator control threatens to weaken these foundations of waterfowl conservation. Remember that habitat conservation coupled with normal moisture conditions have enabled waterfowl populations to attain their highest levels since the 1950s—without predator control.”


Also, picture launching all-out predator control programs against foxes, raccoons, and skunks over large portions of the Prairie Pothole Region during the spring and summer, when their pelts are worthless and their young are helpless and would starve without their parents. Disturbingly for those of us who love to hunt, the antihunting, antitrap

ping, and animal-rights groups on society’s fringes could have volatile new fuel for their positions. Furthermore, it would be disastrous to lose the support of the nonhunting (not the antihunting) majority of the general public that support modern wildlife conservation programs and who can influence wildlife-friendly legislation.

This is why DU leaders know that the most important thing DU can do is to secure existing habitat and increase it wherever it has the opportunity. Waterfowl habitat is still under relentless siege. Sea level rise, expansion of agriculture in critical waterfowl areas, urban sprawl, contamination of the continent’s waterways, growth of extraction industries in previously untouched regions of the continent,

and detrimental public policy are all major concerns. And, despite all the progress made in wetlands conservation programs and policy, including the last three administrations’ “no net loss of wetlands” policies, the U.S. alone still loses more than 100,000 acres of wetlands each year. New additional threats to the wetland habitat base include a U.S. Supreme Court decision that changes wetland protection measures under Section 404 of the Clean Water Act, which may leave countless numbers of isolated wetlands important to breeding waterfowl open to drainage and filling. Also, unprecedented conversion of highly productive grassland nesting cover to row-crop production is occurring in the heart of the Prairie Pothole Region.

There are regions of the breeding grounds that have good wetland densities but very poor upland nesting, and these types of places are where predator control seems to make the most sense. However, the trade-off between spending limited funds on short-term gains from predator control and long-term securement of the habitat base is a non-starter. We must not divert funds from securing high-quality habitats that are under threat to efforts supporting predator-control programs on habitats of marginal quality: The urgency of securing the habitat base that has produced the greatest recovery of waterfowl populations in the 20th century is simply too great. This is the legacy that we have a chance to leave for our children and grandchildren. There is no legacy in predator control—especially given that it diverts funds and attention away from the core issue of long-term waterfowl conservation: habitat.

Ducks Unlimited’s conservation vision is for viable wetlands and waterfowl populations that support hunting and other uses forever. This is a daunting task, and it will only be achieved if our collective energies are successfully directed towards securing the habitats that will support the birds everywhere they live. 



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